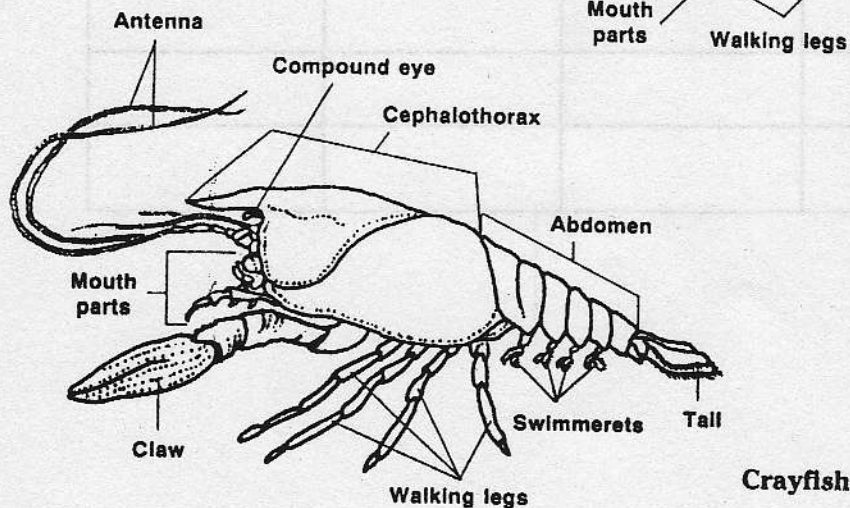
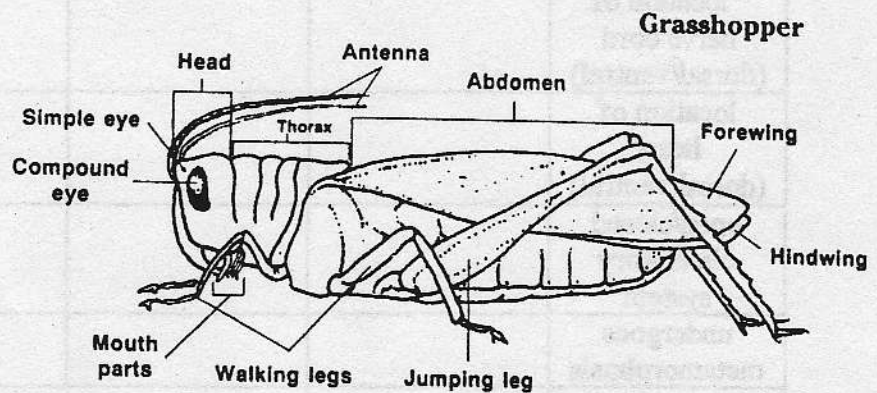
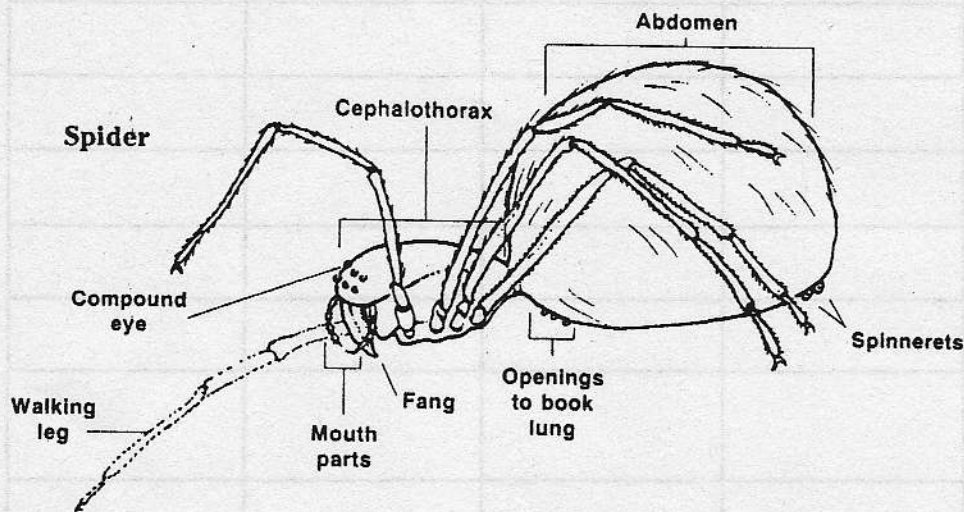


Comparing Arthropods

Classification involves examining the characteristics of organisms and placing them into groups. Organisms are placed in the same group because they have a number of characteristics in common. At the same time, however, the organisms may have many differences. Phylum Arthropoda has more species than any other group of animals. Entomologists suggest that there may be as many as 3 million species. Members of this phylum share certain characteristics, but within the group, three major classes have been identified—the crustaceans, the insects, and the arachnids.

OBJECTIVES

- Examine the characteristics of a spider, a crayfish, and a grasshopper.
- Determine which characteristics are phylum characteristics.
- Determine which characteristics are class characteristics.



Comparison of Traits (Phylum Arthropoda)

Characteristic	Class Insecta (grasshopper)	Class Crustacea (crayfish)	Class Arachnid (spider)	Is trait similar in all classes?
Exoskeleton present				
Number of leg pairs				
Legs jointed				
# of body regions				
abdomen segmented				
appendages on abdomen				
eyes present				
antennae present				
number of antennae				
wings present				
specialized mouth parts				
type of respiratory organ				
location of nerve cord (dorsal/ventral)				
location of heart (dorsal/ventral)				
open/closed circulatory system				
undergoes metamorphosis				
poison glands				
telson present				